CLAIMS

1. A process for recycling a thermoplastic molded article comprising:

a) providing a thermoplastic molded article incorporating as colorant at least one thermolabile sublimable colorant;

b) subjecting the material of the molded article to elevated temperature conditions for a period of time sufficient to extract at least some of the thermolabile sublimable colorant and form an at least partially color modified composition; and

c) recovering the color modified composition for further recycling steps.

2. A process according to claim 1 wherein the material of the molded article is subjected to elevated temperature conditions for a period of time sufficient to extract at least 10% of the thermolabile sublimable colorant.

3. A process according to claim 2 wherein the material of the molded article is subjected to elevated temperature conditions for a period of time sufficient to extract at least 20% of the thermolabile sublimable colorant.

4. A process according to claim 3 wherein the material of the molded article is subjected to elevated temperature conditions for a period of time sufficient to extract at least 30% of the thermolabile sublimable colorant.

5. A process according to claim 4 wherein the material of the molded article is subjected to elevated temperature conditions for a period of time sufficient to extract at least 40% of the thermolabile sublimable colorant.

6. A process according to claim 1, further including the step of recovering the extracted colorant for re-use.

7. A process according to claim 1 wherein the material of the molded article is subjected to elevated temperature conditions for a period of time sufficient to extract at least some of the thermolabile sublimable colorant and form an at least substantially color modified composition.

8. A process according to claim 1 wherein the thermoplastic molded article comprises two or more thermolabile sublimable colorants.

9. A process according to claim 8 wherein, said two or more thermolabile sublimable colorants comprise at least two selected from a violet colorant, a yellow colorant, a red colorant and a blue colorant.

10. A process according to claim 1, in which the thermoplastic molded article is made from a polyester.

11. A process according to claim 1 wherein the colored thermoplastic molded article is substantially free from carbon black and from inorganic pigments.

12. A process for making a useful article which comprises:

(A) providing a thermoplastic molding composition;

(B) admixing with the thermoplastic molding composition at least one thermolabile sublimable colorant material to form a colored thermoplastic molding composition;

(C) forming a colored molded article by a procedure including heating the colored thermoplastic molding composition and molding said hot composition into a molded article;

(D) after use of the molded article, subjecting the material of the molded article to recycling steps which include subjecting the material of the molded article to elevated temperature conditions for a period of time sufficient to cause said material of the molded article to undergo a desirable change of color as a result of sublimation and migration to the atmosphere of the colorant material; and

(E) re-forming the thus treated material into a useful article.

13. A process according to claim 12 including the step of recovering the sublimated and migrated colorant from step (D) for subsequent re-use.

14. A process for making an article from a colored thermoplastic molding composition which comprises:

(I) providing a colored thermoplastic molding composition comprising recycled colored thermoplastic material, said recycled colored thermoplastic material containing at least one thermolabile sublimable colorant material;

(II) subjecting the colored thermoplastic molding composition to elevated temperature conditions for a period of time sufficient to extract at least some of the thermolabile sublimable colorant and form an at least partially color modified composition; and

(III) extruding the resulting at least partially color modified composition to form said article.

15. A process according to claim 14 including the step of recovering at least some of the extracted thermolabile sublimable colorant from step (II) for subsequent re-use.

16. A process according to claim 14 wherein in step (III) the at least partially color modified composition is injection molded to form a bottle preform and wherein the resulting bottle preform is then blow molded to form a bottle.

17. The product of a process according to claim 14.